

Datasheet for ABIN3092684

## GATA6 Protein (AA 1-595) (Strep Tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	GATA6
Protein Characteristics:	AA 1-595
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GATA6 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### Product Details

Sequence: MALTGGWCL PKRFGAAGAD ASDSRAFPAR EPSTPPSPIS SSSSSCSRGG ERGPGGASNC  
GTPQLDTEAA AGPPARSLLL SSYASHPFGA PHGPSAPGVA GPGGNLSSWE DLLLFTDLQ  
AATASKLLWS SRGAKLSPFA PEQPEEMYQT LAALSSQGPA AYDGAPGGFV HSAAAAAAAAA  
AAASSPVYVP TTRVGSMPLG LPYHLQGSGS GPANHAGGAG AHPGWPQASA DSPPYGSGGG  
AAGGGAAGPG GAGSAAAHVS ARFPYSPSP MANGAAREPG GYAAAGSGGA GGVSGGGSSL  
AAMGGREPQY SLSAARPLN GTYHHHHHHH HHHHPSPYSPY VGAPLTPAWP AGPFETPVLH  
SLQSRAGAPL PVPRGPSADL LEDLSESREC VNCGSIQTPL WRRDGTGHYL CNACGLYSKM  
NGLSRPLIKP QKRVPSRRL GLSCANCHTT TTTLWRRNAE GEPVCNACGL YMKLHGVP RP  
LAMKKEGIQT RKRKPKNINK SKTCGNSNN SIPMTPTSTS SNSDDCSKNT SPTTQPTASG  
AGAPVMTGAG ESTNPENSEL KYSGQDGLYI GVSLASPAEV TSSVRPDSWC ALALA

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you**

### have a special request, please contact us.

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#### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

#### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

#### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

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#### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.

## Product Details

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2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

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Purity: >80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

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Grade: Crystallography grade

## Target Details

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Target: GATA6

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Alternative Name: GATA6 ([GATA6 Products](#))

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Background: Transcription factor GATA-6 (GATA-binding factor 6),FUNCTION: Transcriptional activator (PubMed:19666519, PubMed:27756709, PubMed:22750565, PubMed:22824924). Regulates SEMA3C and PLXNA2 (PubMed:19666519). Involved in gene regulation specifically in the gastric epithelium (PubMed:9315713). May regulate genes that protect epithelial cells from bacterial infection (PubMed:16968778). Involved in bone morphogenetic protein (BMP)-mediated cardiac-specific gene expression (By similarity). Binds to BMP response element (BMPRE) DNA sequences within cardiac activating regions (By similarity). In human skin, controls several physiological processes contributing to homeostasis of the upper pilosebaceous unit. Triggers ductal and sebaceous differentiation as well as limits cell proliferation and lipid production to prevent hyperseborrhoea. Mediates the effects of retinoic acid on sebocyte proliferation, differentiation and lipid production. Also contributes to immune regulation of sebocytes and antimicrobial responses by modulating the expression of anti-inflammatory genes such as IL10 and pro-inflammatory genes such as IL6, TLR2, TLR4, and IFNG. Activates TGFB1 signaling which controls the interfollicular epidermis fate (PubMed:33082341). {ECO:0000250|UniProtKB:Q61169, ECO:0000269|PubMed:16968778, ECO:0000269|PubMed:19666519, ECO:0000269|PubMed:22750565, ECO:0000269|PubMed:22824924, ECO:0000269|PubMed:27756709, ECO:0000269|PubMed:33082341, ECO:0000269|PubMed:9315713}.

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Molecular Weight: 60.0 kDa

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UniProt: [Q92908](#)

## Application Details

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**Application Notes:** In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

**Comment:** ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.

During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

**Buffer:** The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

**Handling Advice:** Avoid repeated freeze-thaw cycles.

**Storage:** -80 °C

**Storage Comment:** Store at -80°C.

**Expiry Date:** Unlimited (if stored properly)



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process